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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,748	12/22/2005	Yves Dordet	0563-1044	5071
466	7590	11/05/2009	EXAMINER	
YOUNG & THOMPSON 209 Madison Street Suite 500 Alexandria, VA 22314			FAYYAZ, NASHMIYA SAQIB	
			ART UNIT	PAPER NUMBER
			2856	
			NOTIFICATION DATE	DELIVERY MODE
			11/05/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DocketingDept@young-thompson.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/538,748	<b>Applicant(s)</b> DORDET, YVES	
	<b>Examiner</b> Nashmiya S. Fayyaz	<b>Art Unit</b> 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 8-14 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-14 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8-14 and 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 8, it is recited that the collar has a portion disposed outside the orifice and is "releasable from a remainder of said collar", see lines 21-24. However, this is NOT consistent with the drawings and disclosure which clearly depict **the collar as a single piece unit** and there is no apparent mechanism to release the portion outside the orifice from the *remainder*. Clarification of where there is a description of the portion of the collar disposed outside the orifice which is releasable upon removal of a nut is needed. In claim 9, "said fixed portion" lacks antecedent basis. Claim 17 is inconsistent with claim 8 which indicates a portion of the orifice is releasable from the remainder via the nut. In claim 18, on lines 20-25, it is unclear how the nut is releasable from "a remainder of said fixed member" and how it is indicated "upon removal of the fixed member portion". How can the fixed member portion be removed without removing the whole fixed member which then results in the spark plug, etc can be removed? Also, how is

a nut releasable from the "remainder of the fixed member"? Please specify what portion is being designated the "remainder" and how upon the removal of the fixed member portion, the spark plug, etc. "can be removed or replaced". In claim 19, how is the fixed member portion releasable via the fixed member and the nut? Again, how is the fixed member portion even releasable from the fixed member? In claim 20, on line 21, how can the collar portion disposed outside the orifice be "releasable from a remainder of the collar"?

***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 8-14 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartley-US Patent # 5,823,802. As to claims 8, 18 and 20, **as best understood**, Bartley discloses a device (cylinder pressure sensor 10) for detecting pressure in internal combustion engine 11 cylinder head and passing through a wall of engine 11 in orifice (channel 14), spark plug 23 in the orifice extending from inside to outside the cylinder, the spark plug 23 being movable (note col. 4, lines 44-53 indicating the spark plug is removable), collar/fixed member/portion (sleeve 12 with shell 22, bonnet 24), spark plug 23 with a confronting portion (spark plug connector 25), pressure sensitive means (sensing element 16), nut (guard ring 40) for removal of connector 25 for removal of the spark plug 23, see fig. 1 and col. 2, lines 3 et seq. Further, it is noted that Bartley

does not specifically state that the pressure sensitive means 16 senses the pressure generated by the displacement of the spark plug and the actual description of the pressure being sensed is apparently omitted in the description. However, it is noted that the purpose of cylinder pressure sensor is to measure pressure in the cylinder in which the spark plug is mounted. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have realized that the pressure being measured by the sensing element 16 **causes some degree of displacement** of the spark plug given that the spark plug extends into the cylinder creating the pressure being measured. As to claim 9, as best understood, the ring 40 indicates an annular shape as well as the connector 25 and pressure sensitive means 16 appear to be annular. As to claim 10, note fig. 1 depiction. As to claim 11, the connector 25 is on a side of the element opposite the wall. As to claim 12, the two portions do appear to be of greater diameter than the bottom portion of the orifice. As to claim 13, each of these elements are outside of the bottom orifice. As to claim 14, note threading on shell 22. As to claims 17 and 19, note ring 40 appears to be a nut.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 8-14 and 17-20 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's arguments filed 6/25/09 have been fully considered but they are not persuasive. Applicant has argued that the sensor of Bartley senses head

deformation due to cylinder pressure variation and has "nothing to see with any sparkplug displacement". Such an argument is not found persuasive because the cylinder pressure variation would result in *some degree of displacement* on the spark plug as the plug extends into the cylinder causing the pressure variation. Further, it is noted that the claim language is firstly unclear and secondly merely indicates "to detect pressure changes in said cylinder head that cause bodily axial movement of said spark plug" which is met by the Bartley reference.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nashmiya S. Fayyaz whose telephone number is 571-272-2192. The examiner can normally be reached on Tuesdays and Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/N. S. F./

Examiner, Art Unit 2856

/Hezron Williams/

Supervisory Patent Examiner, Art Unit 2856